Twenty-Fifth Year. MAY, 1902. Vol. 48. No. 5.

THE CAROLINA

Medical Journal.

SUCCEEDING THE NORTH CAROLINA MEDICAL JOURNAL.

Published Monthly at $1.00 per Annum, in Advance.

Robert L. Gibbon, M. D., Robert D. Jewett, M. D., W. H. Wakefield, M. D.,

Editors and Proprietors.

Charlotte, North Carolina.

"THE BEST ANTISEPTIC

is undoubtedly that which is the least harmful to man in the dose required for asepsis."—DR. DUJARDIN BEAUMETZ.

LISTERINE

a safe, trustworthy, non-toxic antiseptic, answering every requirement of the physician and surgeon. In special practice, notably Laryngology and Rhinology, Listerine occupies an unrivaled position by reason of its excellence and wide range of ability.

An interesting little brochure, entitled:
"THE TREATMENT OF DISEASES OF THE RESPIRATORY SYSTEM"
will be mailed to your address upon application.

Its exceedingly agreeable properties, and the readiness with which it disinfects offensive lochial discharges, has won for LISTERINE a first place in the lying-in room as a general cleansing, prophylactic or antiseptic agent. Whilst there is no possibility of poisonous effect through the absorption of LISTERINE, its power to neutralize the products of putrefactive changes, and thus to prevent septic absorption, has been most satisfactorily determined by extended clinical test.

LISTERINE

promptly destroys all odors emanating from diseased gums and teeth. It is a perfect tooth and mouth wash, indispensable for the dental toilet.

LAMBERT'S LITHIATED HYDRANGEA

A remedy of acknowledged value in the treatment of all diseases of the urinary system and of especial utility in the train of evil effects arising from a uric acid diathesis. Close clinical observation has caused LAMBERT'S LITHIATED HYDRANGEA to be regarded by physicians generally as a very valuable Kidney Alterative and antilithic agent in the treatment of

Cystitis, Diabetis, Gout, Rheumatism, Hematuria, Bright's Disease Urinary Calculus, Albuminuria and vesical irritation generally.

Realizing that in many of the diseases in which LAMBERT'S LITHIATED HYDRANGEA has been found to possess great therapeutic value it is of the highest importance that suitable diet be employed, we have had prepared for the convenience of physicians

DIETETIC NOTES,

suggesting the articles of food to be allowed or prohibited in several of these diseases. A book of these Dietetic Notes, each note perforated and convenient for the physician to detach and distribute to patients, together with a pamphlet treating of **"Renal Derangements"** may be had by addressing:

LAMBERT PHAR[redacted] ST. LOUIS.

Complications of Fractures and Their Management.

Duncan Eve treats the subject practically. Injuries to soft parts as immediate complications often demand special treatment; lacerated muscles require suturing, or, if macerated, removal. Injuries of the viscera are to be dealt with; large bloodvessels are frequently lacerated. Traumatic aneurysms are sometimes associated with fractures; displaced bones against a vessel may impede the circulation and cause gangrene. Injury to nerves is not uncommon. Ulceration, sloughing and gangrene, due to tight bandages or pressure of splints, are dangers always to be guarded against. The tips of fingers and toes should be left exposed in order to observe the circulation. Fat embolism is a condition peculiar to fractures, comes on about the fourth day, and is usually fatal. Muscular spasm often persists, and is best overcome by constant traction. Atrophy of the limb takes place in all fractures, chiefly as a result of disuse, but gradually disappears with use. Pain, or neuralgia, or paralysis may be due to the involvment of a nerve in callus, and can be relieved by freeing the nerve. The author takes up the complication of special bones, and gives directions for their treatment.—*The Southern Practitioner.*

Table of Contents.

Index to Advertisers.

Rectal Valves.

For the last two and a half years the movable rectum has been personally examined in some two hundred different individuals, and, with the exception of those subjects in whom the gut-walls had been rendered non-inflatable by disease, not an instance has been found in which the presence of the rectal valves admitted of a question. These structures have not only been present, but always the most conspicuous and easily discernable feature in the entire rectum.

The rectal valves are not composed of mucosa alone, but comprise in their structure submucosa and muscular fibres as well, and therefore must impose direct resistance and support to the rectal contents; hence must be regarded as something other and more than mere folds of mucous membrane. From the modification in structure and arrangement which all the coats present upon reaching these valves, one is forced to the conclusion that they are definite anatomical structures and should be entitled to recognition as such, just as much so as the appendix vermiformis.—A. B. Cooke, (*American Practitioner and News*, December 15, 1901.)

For Foul-Smelling Feet.

The *Practitioner* for March says that a lotion made of one drachm of potassium permanganate to one pint of water is said to be very effectual in counteracting the odor of sweating feet.

The Carolina Medical Journal.

A Monthly Journal of Medicine and Surgery.

VOL. XLVIII. CHARLOTTE, N. C., MAY, 1902. No. 5.

Address all communications and make all funds payable to THE CAROLINA MEDICAL JOURNAL.

TERMS:

Subscription $1.00 per year, in advance.
Subscribers failing to receive the JOURNAL should notify us within the month and the omission will be supplied. Subscriptions may begin with any number.
Receipts: The receipt of all money is immedately acknowledged.
Important Notice.—Subscribers wishing the JOURNAL stopped at the expiration of their paid-in advance subscription must notify us to that effect, otherwise we assume it their wish to have it continued expecting to receive a remittance at their earliest convenience.
We Notify all subscribers when their paid subscription expires.

EDITORIAL.

STATE BOARD EXAMINATIONS.

There has been much controversy in some quarters over the advisability of reciprocity in the matter of State licenses, but so different are the laws in the several States governing issue of license to applicants, that the difficulties in the way of adopting a uniform rule of practice in recognizing the certificates of the several examining bodies, that the question is as yet far from a satisfactory settlement. It is to be regretted that such want of uniformity in standard exists, as in common courtesy, as well as a matter of good policy, an agreement of some sort should be reached. The chances of an arrangement of this kind, however, seem remote, unless it could be done by a national enactment.

From an exchange we learn that the State board of dental examiners in Oregon, recently passed at their last examination only one out of ten applicants who came before them.

When we examine the kind of questions propounded by the board, we are not surprised at this surprising decimation of prospective dentists in that State. Perhaps the board considered the profession in that locality already too numerous to exist upon the available pabulum, and took this means of self-preservation. At any rate the measures were very effective. The chief cause of failure to pass the examination was due to the questions on chemistry. Here is a sample: "Name the rare dyad metals: give their symbols, atonic weights, specific gravity and fusing points?"

Beyond demonstrating the existance of a Chinese memory in some individual of the seekers for license, it is highly difficult to see what qualifications for the practice of dentistry a successful answer to such an interrogation would imply. We are not acquainted with any professional chemist, much less a student of medicine or dentistry capable of answer-

ing it off hand, and our opinion of his mental qualities would not be especially augmented if he did.

Apropos of this, the *Philadelphia Medical Journal* makes some highly sensible criticisms of the average examining board.

"This incident is but one of too frequent misuse of the opportunities of State examiners. Such boards, either under the provisions of law or by custom, are apt to be made up largely, often wholly, of persons not actively engaged in teaching or even familiar with teaching methods and their questions are too often drawn from text books or based upon the recollection of professional studies many years before, without taking into consideration the changes which sciences and the method of teaching have undergone. It is these circumstances that bring forth such a question as "give a test for strychnine" (without naming the conditions under which the test is to be applied) or question upon melting or boiling point or specific gravity, none of these data being proper objects of memory for the dentist or doctor.

"The fact is, examinations in physiology, chemistry, histology, bacteriology and materia medica should not be included in the list of State examinations. These branches are part of the preparatory work of the medical course, and all that is needed is a moderate scrutiny of the college methods to ascertain that the work is being done in its proper place. The State examinations should be limited to pathology, surgery, gynecology, obstetrics, practice and hygiene. This limitation would give opportunity for more thorough examinations in these branches than is now practicable and permit even some practical exercises. If it be thought necessary to continue the examinations in the theoretic branches, such examinations should take place just after the close of the study of them and not after the candidate has been at least two years engaged in other lines."

LONGEVITY AND THE PHYSICIAN.

The mortuary statistics of life insurance companies place physicians low on the list as regards longevity. There are perhaps many reasons why this should be so, since the arduous nature of his calling is generally acknowledged. Besides the physical work, and under many circumstances this is excessive, there is a burden of responsibility and a wear and tear on the sensibilities that undoubtedly tends in certain susceptable organizations to an early break-down and unfortunately, in not a few instances leads its voteries to resort to stimulants or narcotics. In men who have passed the meridian of life the irregularities and harassments of a general practice, added to the unnatural stimulus of sharp competition (for many middle-aged physicians are as jealous of their clientele as though they were beginners), must necessarily do something to shorten the latter years of life, as they certainly destroy its comforts and leisure. Still the medical profession has had and has now, many conspicuous examples of longevity, which will readily occur to the reader. It would seem that foreign medical men more frequently reach the age limit than do Americans, which only indicates that we suffer from the prevailing national vice of leading

too strenuous an existance. The oldest practicing physician in the United States is said to be Dr. O. R. Skinner, of Freehold, N. J., who is in his 93rd year. He was a surgeon in the civil war. He is kept quite busy with his professional duties and answers promptly all calls. His long life is probably due in part to the fact that most of it was passed prior to the general use of the telephone. His chances now would hardly be so good.

What the American Medical Association Asks of the State Societies.

The following resolutions, among others, recommended by the committee on reorganization were adopted at the last meeting of the American Medical Association:

c. That the State societies unitedly agree to federate themselves in the American Medical Association, and, as a preliminary to this, adopt a uniform organic law in regard to certain fundamental principles, viz.: to divide their annual sessions into two branches, legislative and scientific; the legislative branch to be as small as is compatable with representation from all the county societies, and to be composed of delegates elected by the county societies.

d. That membership in the county or district societies shall constitute membership in the respective State society without further dues, and that no one be admitted to membership in the State society except through county or regular district societies.

e. That funds to meet the expenses of the State society be raised by a per capita assessment on the county and district societies.

f. That a united effort be made to influence special societies to limit their membership to those who support the regular organization, and the semi-national and miscellaneous societies to encourage systematic organization, by covering a definite territory and also by limiting their membership to supporters of the regular organization.

g. That each State society create a permanent committee and a fund for the purpose of enforcing all medical laws in every part of its territory.

h. That each State society cooperate with the American Medical Association and with the other State societies in solving the problems now before the profession relating to medical education, medical legislation, reciprocity, licensing, etc.

An analysis of these resolutions shows that the American Medical Association requests the following:

1. The federation of all the State associations in the American Medical Association.

2. That all associations adopt a uniform plan of organization as regards certain fundamental principles.

3. That each State association have two distinct branches, legislative and scientific.

4. That the legislative branch be as small as compatible with representation from all county societies in the State or territory, and to be composed of delegates elected by the county (or district) societies.

5. That the scientific branch be composed of and open to all members of county (or district) societies, or as stated in the resolution: "Membership in the county or district society shall constitute membership in

the respective State societies without further dues, and that no one be admitted to membership in the State society except through county or regular district societies."—*Journal of American Medical Association.*

Concerning the Hypnotic Action of Apomorphine Hydrochlorate in Alcoholism.

W. Coleman and J. M. Polk (*American Medicine,* March 8, 1902,) draw the following conclusions in regard to the hypnotic action of apomorphine hydrochlorate in alcoholism:

1. To obtain a hypnotic action with apomorphine it should be given hypodermically.

2. The dose cannot be fixed. It is best to begin with a small dose—1-30 grain or less—and to repeat this or give a slightly larger dose within a short time. Further doses should not be given after vomiting occurs, until several hours have passed.

3. Doses repeated in two or three hours have but little beneficial effect.

4. The administration of apomorphine should not be repeated in patients who are weak.

5. The duration of the hypnotic action is only a few hours, and when the patient awakes his condition is practically unchanged, except in "ordinary drunks."

6. The best results are obtained from apomorphine when it is followed in two or three hours by some recognized hypnotic, as bromide, chloral, paraldehyde, etc.

7. Solutions of apomorphine are unstable, and should be freshly made for use. Old solutions should never be used.

8. Apomorphine may be employed as a hypnotic in selected cases of alcoholism. The best results are obtained in "ordinary drunks" and in cases verging on delirium tremens. But in some of these cases the drug has no effect whatever.

The administration of apomorphine to patients in delirium tremens is, in the writer's experience, without beneficial result, and may even be attended with danger from the depressing action.

The above analysis represents in the main the results obtained with apomorphine in all the 300 patients presenting alcoholism to whom the drug was administered.—*Medical Age.*

A Case of Tuberculosis of the Skin Following Accidental Inoculation With the Bovine Tubercle Bacillus.

Mazijck P. Ravenal reports the case of a physician who, while performing autopsies on two cows which were the subjects of experimental tuberculosis, slightly wounded the flexor surface of his wrist. The wound was merely washed in water and healed promptly. Four weeks later, the scar was seen to be red, prominent, and sensitive; it increased in size rapidly, and about two weeks later there was a nodule 15 mm. long by 8 mm. wide. This was removed, and with a portion of it two guinea-pigs were inoculated subcutaneously, and both developed generalized tuberculosis. Another portion of the nodule was examined microscopically, and showed a large number of giant cells and tubercle bacilli.—*University of Pennsylvania Medical Bulletin.*

The Carolina Medical Journal.

ROBERT L. GIBBON, M. D., ROBERT D. JEWETT, M. D., W. H. WAKEFIELD, M. D.
Editors and Proprietors.

ORIGINAL COMMUNICATIONS.

Why Not Forestall Tuberculosis and Blot It From the Face of the Earth.*

BY JAS. A. BURROUGHS, M. D., Asheville, N. C.

Modern sanitary laws enforced by municipalities and nationalities have partially throttled certain contagious and infectious diseases and increased longevity 16 per cent. within the last generation.

Vaccination was practiced more than one hundred years ago, but smallpox was not rigidly quarantined until later, and now it is to be observed that through vaccination and intelligent quarantine the disease is so robbed of its horrors, that it no longer strikes terror to a community.

By rigid quarantine of diphtheria and prompt administration of diphtheritic antitoxin, this once dreaded disease has become a subject of vigilance and not of fear.

The investigations of the cause of yellow fever by Walter Reed, of the United States Army at Havana, during the past two years have been so thorough and convincing of the one real source of infection, that never again will the United States or any other progressive country, with a well organized board of health, experience an epidemic.

Scientific investigation has set the trap and scattered the poison for the rat with a strict quarantine of every suspected case of the plague and has forever prohibited the disease again establishing a hold in any quarter.

By intelligent quarantine of scarlet fever, whooping cough and measles,

*Read before the Tri-State Medical Society of the Carolinas and Virginia, at Asheville meeting, February, 1902.

followed by thorough formalin fumigation, these diseases are limited to circumscribed localities, yes limited to a single person in a single room in a building with many rooms, or dormitories, with many persons of a susceptible age.

In the year 1899, approximate mortuary statistics of the United States of America was 1,900,000. Pulmonary tuberculosis was responsible for 246,000 deaths, or approximately 13 per cent. of all deaths were due to pulmonary tuberculosis. The mortuary statistics of the United States possibly strike a fair average with other countries, except that of Germany, where in the same year 25 per cent. of all deaths in that country were attributed to tuberculosis. Insurance statistics of companies issuing policies against sickness in Germany for the year 1899 show 42 per cent. of the laboring class tubercular. These facts or statistics are so stupendous and startling that the average mind fails to grasp the cold, thin clammy situation of this unfortunate multitude.

We should pause and think; practically no man is born tubercular; every one who has tuberculosis has contracted the disease and, in every instance, it could have been forestalled and prevented. For just 20 years we have known the tubercle bacillus, and year by year we have learned its habits and various modes of entering the human system, consuming and extinguishing the life of that which is made in God's owr image.

No problem before us at present compares in gravity and magnitude, not only to this generation, but to those who come after us, as to the wisest disposal of the consumptive. The great question is of two-fold significance: First: How can we best care for the patient; Second: How can we prevent the spread of the disease?

How can we best care for a consumptive? To place him in the most favorable condition for an arrest or cure and, at the same time, prevent a spread of infection, allows of much latitude for debate, but at best, narrows down to a few cold facts. Education of the laity, suitable legislation and a hearty co-operation of each medical man in the land.

Tuberculosis annually causes more deaths than any other two diseases combined. It is an insiduous disease, unlike acute infectious troubles, and the public has learned to look upon consumption as something that has always been with us, and accepts the situation as a matter that cannot be prevented.

How to educate the masses out of this state of lethargy is a question that should be begun under the head of hygiene in our public schools. Small children should be taught that tuberculosis is contagious so as to avoid infection from an afflicted parent, teacher or schoolmate. These children should be taught that in the sputum lies millions of germs, ready to infect any subject with a poor resisting power caused by heredity, mal-nutrition or any other cause.

Public schools everywhere should have a course on public hygiene with special reference to obliterating tuberculosis. This course should include the poor resisting power of children born of tubercular parents, or born of healthy parents with systems that have deteriorated, because

of environments, lack of proper food, clothing or habits.

Too much attention can not be given to modern sanitary living quarters with adequate room for an abundance of pure fresh air and sunshine; at the same time devitalized air should be taught as one of the potent causes of tuberculosis. There are many things to be included in this little course of hygiene or young war against tuberculosis which has received no attention here but may be brought out in the discussion.

I know of no other way to reach the masses on this or any other subject of such vital importance, as starting at the fountain head with the little ones who in half a generation will have the custodianship of all nations.

We must all acknowledge that the contagion or infection of any disease must be implanted in the minds of a community before a moral support is given a health board to stamp out a disease. It is when boards of health have good laws to prevent the spread of tuberculosis and these boards of health are "scotched" by the medical profession, upheld by a people who have been taught the nature of tuberculosis with its various modes of infection, etc., and the means by which it can be controlled, that we expect to see the disease practically abolished from mortuary certificates.

The public mind of America, as well as that of Europe is becoming aroused as to the ravages of tuberculosis and, at the same time, as to its prevention and curability. Much unwise legislation has been proposed from erratic, impulsive sources, for instance, the "Immigrant Exclusion Act of the Tubercular." Some States have introduced bills to prevent the introduction of the tubercular; even a few villages have passed ordinances prohibiting the tubercular from entering their gates. Such legislation is worthless because it is impracticable and will ever remain dead upon the statutes. Notwithstanding some mistakes have been made along this line, much good has already been accomplished. The civilized world is enlightened as to the great danger that lurks in the consumptive's sputum. (Various pocket flasks and hand cuspidores have been devised for receptacles of sputum; minute details are given each individual as to collecting and destroying same by all intelligent physicians.)

Four fifths of the citites of the United States have passed ordinances prohibiting spitting on the sidewalks, floors of street cars and public buildings. Asheville, N. C., in 1894, was the first town in the United States to pass such an ordinance. Dr. Trudeau at Saranac Lake very shortly followed suit and it soon became contagious. Many hundred copies of our ordinance have been sent to city attorneys throughout the country, by request. The ordinance has been well observed here. No man can visit our principal cities to-day and compare hotel lobbies, street car floors and sidewalks with six or eight years ago without being impressed with a change for the better.

Municipalities are discussing, on every hand, the disposition of their consumptive poor; in many instances homes have been established exclusively for the tubercular. Massachusetts and New York have already made contributions and established

State institutions for consumptives; other States are formulating plans along the same line; it is entirely logical and but reasonable to expect every city and State in the Union to adopt some practical means for the care of the consumptive pauper and to prevent him from infecting others.

The Sanatoria idea has taken possession of Italy, Germany, and, I may say, all of Europe. As yet the Sanatoria capacity is so out of proportion to the number of consumptives in those countries that it offers but slight protection; besides, it has yet to be proven by any kind of statistics that this is best for the inmates. At best, this plan can only offer protection in ratio to the Sanatoria capacity.

The tenement house question has been well discussed by Knopf and others, and, in a few instances, has brought about some legislation as to capacity and ventilation of apartments. Many cities have taken up the milk and meat supply with a view to eliminating tubercular food products. Many States and nationalities have laws providing for disposal of tubercular stock. Many other legislative steps have already been taken against this, the great foe of the human race.

An International Congress of Tuberculosis has been formed and it is from this international body that the world may expect, in a reasonable time, some formulated plans whereby this disease may be controlled.

An international prophylaxis of tuberculosis is eminently necessary, and suitable international regulations or laws must and will be enacted to combat this disease, as has been with cholera, the plague and yellow fever.

In the meantime, while we are waiting for action of our International Congress to formulate laws, let each nationality, State, city and parish meet the question squarely with suitable care for this class. In this country it is a debatable question as to national, State, municipal or county supervision. Very few States possess suitable climatic points for this class. National consumptives parks, consisting of small farms and truck gardens with many tents and inexpensive cottages, located in a dry climate at a suitable altitude, seems to be the reasonable solution. In this way the chief focuses of infection will be removed from the country and placed in a most advantageous position for a recovery. At the same time it is to be noted that sputum, in a high, dry, sunny climate is practically sterile as soon as dry, so these parks would not become infectious or pestiferous localities from long habitation.

In this connection I cannot refrain from suggesting something along the same line for the prospective consumptives; poor children born of tubercular parents with bad lymphatic systems and reared in an atmosphere loaded with moisture and superabundance of bacteria, and who have improper, scant food, are as certain to become tubercular as time rolls on unless environments are altered. It is for this class, who are very numerous, that so much good may be accomplished by a change of environments and by giving them good food and plenty of fresh air.

A national supervision would be most admirable, but is probably impracticable; a country supervision is entirely feasible. It is the poor that needs government protection; the

well-to-do and rich have largely ceased to raise tubercular offspring. The trouble is forestalled by the child being placed in the best climate with good food, etc., to grow up into a healthy citizen.

The medical world is aroused upon the subject as is evidenced by a continuous stream of literature from all quarters of the globe.

Something has already been accomplished in lessening the number of deaths in the country. The mortuary certificates of five of our largest cities for 1900 show a decrease of 36 per cent. from tuberculosis over 1890; this intimates that the trouble is not only being prevented to a degree but is being handled in a more intelligent manner than ever.

With a course in public schools on hygiene with special reference to tuberculosis, in fifteen years we will have a voting population who will endorse any suggestion from the International Congress of Tuberculosis. This is a young subject, yet vigorous; some of the best brains of the world are devoting their energies to the prevention of the trouble.

While waiting for the educated hoard, international, national and State laws, let each physician be true to his clinician by keeping the young from becoming tubercular by knowledge which is in the possession of all; at the same time placing those who are already tubercular in a suitable climate in competent hands and fumigating behind them.

If we can and do utilize the knowledge that is in our possession, we will be able to largely forestall tuberculosis and so reduce the death rate from this cause that longevity may be increased several per cent.

Some Remarks on Cataract—Experience Gleaned From Over Five Hundred Cases.*

By Joseph A. White, M. D., Richmond, Va., Professor of Ophthalmology, and Associate Professor of Otology and Laryngology in the University College of Medicine, Richmond, Va.; Senior Surgeon to the Richmond Eye, Ear, Throat and Nose Infirmary; Member of the American Ophthalmological Society, of the American Laryngological, Rhinological and Otological Society, Tri-State Medical Association, Medical Society of West Virginia, etc., etc.

Cataract is a subject which among specialists would apparently need no remarks, as it is presumed that there is hardly any better known or better investigated subject. Still I have never heard the subject opened in a gathering of oculists that it did not awaken the liveliest discussion and invariably bring out something new in the way of handling these cases.

In a mixed gathering of medical men, however, I know of no more pertinent topic. As you well know, it is exceedingly common. There are few practitioners who do not meet cases of cataract, whether among their well-to-do or poorer practice makes no difference, and meeting it as often as they do, they should have just as accurate information in regard to its proper diagnosis as they have in regard to tuberculosis. They are analogous only in that in one case the eyesight is at stake, and in the other, life is at stake. An error in the diagnosis of either in the earlier stages may result in hopeless blindness or in death. For cataract must not be confounded with other eye troubles, the early treatment of which would save the eye, any more than tuberculosis should be overlooked in

*Read before the Tri-State Medical Society of the Carolinas and Virginia, at the Asheville meeting, 1902.

the stage that is amenable to treatment.

Cataract is frequently confounded with glaucoma. This is a common mistake. It is also confounded with commencing amblyopias, whether due to retinal or optic nerve troubles. Now it does not require an expert opthalmic surgeon to avoid making this mistake. All that is necessary is for the medical man to give the same thoughtful care to the diagnosis in eye troubles as he gives in the diagnosis of lung and kidney troubles.

This is especially and particularly so in regard to the gentlemen who practice in the country, for, as a rule, they have to be more self-reliant than the city doctors. They have no one around the corner to settle a disputed question of diagnosis for them, and. therefore, they cannot neglect to acquire the information necessary to lead them to a correct conclusion in these cases, as the city doctor can. He is obliged to shoulder the responsibility which the city doctor shirks, and shirks with impunity. He cannot always do as the latter does, take his patients to somebody else as soon as he finds his trouble. This he can do with people of ample means, but the majority of cases do not want to be taken away for the mere diagnosis of their trouble, as they expect their doctor to do that for them.

An error in diagnosis often proves most disastrous. If it is cataract that is beginning to lower the vision, all well and good. No harm is done. But if it is not cataract, if it is chronic glaucoma, whether simple or inflammatory, if it is trouble of the retina, or of the optic nerve, the waiting for the period of blindness, which must be done in cataract before the operation is performed, means simply that the patient has lost all the time when treatment could have been of any avail, and only reaches the opthalmic surgeon when such damage has been done to the vision that no skill on earth can help such cases.

Now, it is well for us to bear in mind the grave importance of delay in these cases, and the grave responsibility we assume if we confound them with commencing cataract. Many of the amblyopias, in the early stage, rapidly recover under the proper treatment. Most cases of glaucoma, when recognized in time, can have the sight saved by surgical intervention. Can you not see, therefore, how important it is to be able to differentiate cataract from these other troubles?

You have no idea how often oculists have patients sent to them with a letter from the attending physician stating that the patient has been gradually getting blind from cataract for some months, and they have advised him to wait until the eye was blind so that he could be operated upon. Occasionally, they are advised to wait until both eyes are blind, and on examination the oculist finds that atrophy of the retina or the opitc nerve, or both, or cupping of the optic nerve with increased tension, occasionally, in the latter cases, with cataract complicating the other diseases, and secondary to them.

Now how are we to distinguish without an opthalmoscope commencing cataract from these other troubles? Sometimes this is very difficult, at other times it is easy. You can always see by a careful external examination with a good light

and a lens, such as nearly all doctors carry for the examination of the skin, the condition of the cornea, the iris and the opening in front of the iris, or the pupil. Now the condition of these parts borne in mind would help us a great deal in coming to a conclusion. In *cataract* the conjunctiva, cornea and iris are normal, and vision is usually better in a modified light, (in nuclear cataract this is always so, as the opacity is in the centre of the lens and requires the dilatation of the pupil that comes i na modified light, in cortical cataract, however, when the opacity is at the periphery this does not apply). is constant throughout the day, and the *tension* is always the same. The pupil is not dilated, acts perfectly under the light stimulation, but gradually becomes cloudy or grayish instead of black. In *glaucoma,* the conjuctiva is generally somewhat injected, especially around the cornea, the cornea itself is somewhat clouded at times, and the pupil is dilated more or less, and re-acts sluggishly, the vision varies during the day, being better sometimes than at others, and the tension also varies, being increased at times. In *amblyopia* the vision steadily decreases as in cataract, and is always best in a bright light, as plenty of light is required to stimulate the paretic optic nerve fibres.

Later on, the points of difference become more marked. In cataract the pupil becomes more clouded, usually of a grayish hue, but still has normal action. In glaucoma it may be greenish in color, but is dilated, whilst in amblyopia it is black as in normal eyes (hence the Germans call these troubles graue starr, gray cataract; greuner starr, glaucoma; and schwartzer starr or black cataract). In glaucoma the eye becomes more injected, the anterior chamber shallow, the variations in vision more marked and the tension more pronounced. In cataract and amblyopia there is no injection of the eye, and there is no alteration of tension, the loss of vision is gradual in both, but in most cases of cataract it is better in the shade, and in amblyopia it is best in the sunshine. *Pain is never present in uncomplicated cataract,* rarely in amblyopia, and nearly always in glaucoma at one time or another.

As treatment should be instituted as soon as possible in optic nerve troubles and in glaucoma if we are to get any result, we cannot take too great care not to confound them with cataract. When in doubt it is better to get the opinion of a specialist as soon as this can be done. Whilst if it is commencing cataract, the patient has been put to an apparently useless expense, still the diagnosis is settled and the doubt about the form of the trouble removed. Whereas, if it is one of the diseases mentioned, there is a chance of saving sight that would be irretrievably lost by waiting.

Having determined that it is cataract, the question arises *when* should it be operated on. I would say, just as soon as the eye is blind enough, with a dilated pupil, to merely count fingers. *Perfect blindness never occurs in simple, uncomplicated cataract.* A cataract never shuts out the perception of light. When this has occurred an operation would be useless. The removal of the cataract

would not restore vision, and, therefore, should not be done.

Patients are very often so anxious to have their sight restored that they are very apt to mislead a physician if he is not very careful. They will often say I can count my fingers, but I cannot see anything else. Of course, anybody can count his own fingers, and you will very often find that cases that make this claim cannot only not count your fingers when held between them and the light, but cannot tell that you are passing your hand in front of their eyes, and sometimes, cannot even tell that a strong light has been thrown upon the eyeball. I have often had cases sent to me who have unwittingly deceived the doctor in regard to this matter, and I was obliged to send them home without doing anything for them. *As long as there is perception of light there is a chance of restoring some sight, but good vision is never obtained by a cataract operation unless there is a very good perception of light in all parts of the field.*

How long does it take a cataract to mature? This is very variable. In some cases it is very rapid, a few months only, in others it requires as many years, and in some few it never becomes what we call entirely ripe, i. e., with opacification of the entire lens. Some cataracts reach a certain stage that may deprive the patient of useful vision and never make them blind. Such cases should be operated on without waiting for the period of blindness. Some cases of slow development may be hurried to maturity artificially, if the patient is under sixty years of age. Various methods of artificial ripening have been suggested, but the one most free from risk, and equally efficacious as any of the others is the one I advocated some years since in the *Annals of Opthalmology,* in 1892. Wide dilation of the pupil by mydriatics, tapping the anterior chamber and evacuating all the aqueous humor so as to bring the lens into contact with the cornea, and then triturating the lens through the cornea, has proved very successful in my hands, and shortened the period of tedious waiting. I have known a single trituration to bring about complete opacification in two or three weeks. In other cases it is slower, and in some the operation must be repeated. The only risk is iritis, but if the pupil is kept widely dilated the risk is reduced to a minimum.

When it has been determined that a case is a fit one for operation, the condition of the other parts of the eye should be thoroughly inspected before attempting the extraction. It sometimes happens that there may be conjunctivitis with increased secretion, or there may be an apparently increased flow of tears over the lid, due to malposition of the puncta, the entrances to the tear sac, or there may be trouble in the tear sac itself with secretion present. It is very important that such troubles should be corrected before an operation is attempted, as otherwise we might have the wound infected by the secretion from the conjunctiva or the tear sac, and the eye will be lost in consequence of failing to put it in proper condition. This is a very important matter and should never be overlooked.

Granted that the eye is in a good condition for the operation what exact mode should be adopted? I am

satisfied that no law can be laid down, for whilst text-books and treatises on this subject attempt to draw fixed lines for beginners and inexperienced operators, a surgeon's experience soon leads him to do his work in the way that seems best for his patient, and this may carry him away from the apparently beaten road. What seems best to one operator may not seem so to another; and hence the difference of opinion about many operations.

Moreover, each case is a law unto itself, and an observant and experienced surgeon will find indications in individual cases that would have a bearing on the method of operating. Therefore, the best operation is the one that gives the most chances of restoring sight to the case immediately under observation.

Even *during* the operation, unforeseen and unavoidable accidents happen that may alter the preconceived plan of doing it. I doubt if an operator ever makes the section exactly alike in any two successive cases, even in the most tractable cases. Many articles are written on cataract, with minute directions as to the mode of incision, but apart from general directions in this regard any attempts at exactly localizing the line of incision, a millimeter or half a millimeter higher or lower, is all nonsense. The size of the nucleus, the sharpness of the knife, the condition of the cornea, the depth of the anterior chamber, the set of the eyeball in the orbit, the movements of the eye and the patient, all combine to make the incision in each case somewhat different from the preceding or the next one, and in my experience this makes very little difference in the result.

Any beginner can split a cornea to extract a lens; and with a tractable patient, who has perfect control of his eye, with no accidents and complications, he can complete the operation seemingly as well as the accomplished surgeon. But with a nervous patient who can't keep the eye still, and who by unlooked for movements causes the iris to entangle in the knife or the lens to dislocate, or the vitrious to prolapse, it requires the skill that comes only from experience to meet the requirements of the case. Such accidents as these and others happen to all. In my experience, I have had all the accidents and complications that ever occur in connection with the operation and treatment of cataract.

Dexterity in operating doubtless increase the patient's chances of a good result, but it is a curious fact that the perfectly performed operation, without halt, hitch or hindrance, is sometimes followed by such after-complications as to destroy the eye, or lower the expected acuteness of vision. On the other han,d a lobored operation, attended by most unfortunate accidents, frequently results brilliantly.

Since I have lived in Richmond, I have done something over four hundred operations. I do not know exactly how many. In 1886 I reported to the Medical Society of Virginia 102 operations for cataracts at the Richmond Eye, Ear, Throat and Nose Infirmary, and 25 on the outside. In 1892 I reported another series of 100 operations done between 1886 and 1892. Since then I have made no special report, but I am sat-

isfied I have done considerably over 200. Altogether, I have done upwards of 500 extractions, including my experience before I came to Richmond. Now, of course, many operators have done more than this, but this experience is a large one and may prove valuable to others who have not done as much work in this line.

In my earlier operations I had an occasional infection of the wound, but only in cases operated on outside the Eye Infirmary. In over 400 operations performed in the infirmary I have never had but one case of infection, and that was limited to the margin of the wound, and the case made a good recovery. Ninety-eight per cent. of the whole number recovered vision ranging between 20-20 and 20-100. The *ages* ranged from 35 to 88 years of age—one case was 98, and made a good recovery.

I prepare all the cases alike for operation. Twenty-four hours in advance, the eyelids, and the skin of the forehead, cheeks, etc., are thoroughly cleansed and sterilized. The conjunctival sac is irrigated with a very weak solution of bichloride, 1 to 6 to 10,000, or with normal salt solution, and filled with what we call sterilized vaseline, 1 to 3,000 of bichloride, and the eye is sealed with a sterile pad and cotton. This dressing is removed on the operating table. I have cultures taken before this process is gone through with, and afterwards. Before, we find bacteria. Twenty-four hours later, when the eye is opened the conjunctiva is sterile in most cases.

All my earlier operations were done with an iridectomy. In the last ten or twelve years iridectomy is the exception. It is performed whenever the iris is rigid or does not respond readily to a mydriatic, or if there is any difficulty in delivering the lens through the pupil.

It is easier and safer to do the operation with an iridectomy, although the simple extraction is the ideal operation and gives the best looking eye, with a round pupil. One of the after-risks of this method is the possibility of a prolapse of the iris which occurs usually in the first twenty-four hours, but may occur later. I have seen it brought about several days after extraction by a cough or a tendency to vomit. When it happens, the iris should be drawn out and cut off, although I have seen cases of slight prolapse recover without this, by keeping the anterior chamber empty by tapping it daily. Formerly I made a peripheral incision into the capsule, and I think it is the best method when an iridectomy is done, but in simple extraction I prefer removing the anterior capsule with the forceps, or make a crucial incision in the centre. If the corneal incision is sufficiently large, and it is better to make it too large than too small, the lens is delivered without difficulty by slight pressure either on the eyeball, below the cornea, or through the lower lid. Should the lens have been dislocated it is removed with a hook.

The most difficult part of the operation is what is known as the toilet —the delivery of all the corcical remnants which must be thoroughly evacuated to get a clear pupil and to prevent after-reaction. Should the hyaloid be ruptured before the toilet is completed the eye should be let

alone, as manipulation may empty the eyeball.

Troubles of the capsule and iris are often due to an incomplete toilet. Even with the greatest care, especially in simple extractions where remnants of the cortex can linger behind the upper part of the iris, we sometimes fail to get all of it away, and in consequence, have subsequent trouble either from iritis or clouding of the capsule.

When the toilet is completed we fill the eye with sterilized vaseline, apply a thin, wet pad of bichloride cotton. fill both orbits with sterile cotton, held in place by adhesive strips, and put on a mask to prevent any damage from outside accident.

Some operators handcuff the patients. but I fail to see the necessity for this. The patient it put to bed and kept quiet for forty-eight hours, during which time the eye is let alone, unless some complaint of a foreign body, or other discomfort is made, when it is examined at the end of twenty-four hours to see if the iris is prolapsed, in which event it is drawn out and cut off. This, however, rarely happens. At the end of forty-eight hours I make a careful examination of the eye. If it is doing well I simply put in a drop of antiseptic solution, 1 to 5,000 bichloride, filling the eye with sterile vaseline and closing it again as before. During the fourth day I allow the sound eye to be uncovered if the case is doing well, and a mydriatic is instilled into the operated eye, which is rebandaged. On the seventh or eighth day the operated eye is freed from the bandage in the day time, and covered at night as a precaution. In ten days or two weeks they leave the hospital. These are the good cases. All, however, do not do so well. Hemorrhage into the anterior chamber during or after the operation, or remnants of cortex may give us a clouded pupil which requires time for its clearing up. The cornea may also be streaked from the trituration during the toilet. In some casese we have *slow healing of the wound* due to defective nutrition, or to a piece of capsule in the wound, or to a partial prolapse of the iris, the inner edge of the wound being plugged by iris without protruding through it.

An iritis, mild in some cases, severe in others, is the most frequent complication, especially in cases of a rheumatic diathesis It usually begins on the fourth day after the operation, and it often delays the result. The inflammation of the iris may not only cause adhesions to the capsule, but may involve the capsule itself, causing a capsulitis that will cloud or wrinkle the capsule. All these complications may result in so-called secondary cataract, which may disappear under hot formentations and mydriatics, or may require a needle operation to complete the work and give clear cut vision. In fact, a majority of cataract operations require a secondary needling to get the best results. They should be done as soon as possible after the wound has healed and the eye cleared up. Whilst comparatively free from the risk, we must not forget that the operation may rarely be followed by a glaucomatous attack, which would necessitate an immediate iridectomy, and that any lack of care in sterilizing the instruments used might result in infecting the eye. Very little reaction follows the operation, as a rule,

and in forty-eight hours the patient is ready to have glasses adjusted (of course, you understand that after the removal of the lens, neither distant nor near vision can be had without substituting artificial lenses for the natural lens that has been removed). Glasses can generally be given in six or eight weeks after the primary extraction. The high degree of astigmatism following the change in the curvature of the cornea from the incision, has by that time become reduced to a low degree of from 1 to 2 D., and may disappear entirely, although it does not always do so. We usually find the glasses given first have to be changed later on. We also find many cases that declare at first that they can't see with any glasses, but by exercising a little patience the ability to see will come gradually to them as if they were learning their letters for the second time. They had lost the power of fixation during their period of blindness, and they require practice to acquire it again.

Cataract lenses should be of large size so as to give a good field, and if the patient can get accustomed to bi-focal lenses it is far preferable to two pairs which have to be swapped several times daily.

We sometimes meet with a case that gets both near and distant vision with the same lens—the so-called accommodation in a lensless eye. Some years ago I reported a case of this kind, since which time I have met two other cases in the same family. This is explained by a peculiar ability to interpret the diffusion circles on the retina, but such cases generally have a small opening in the capsule, which reduces the size of the circles just as a stenopaic slit or a small perforation in a disc, will improve vision in irregular astigmatism by reducing the size of the dispersion circles.

Appendicitis and When to Operate.

By H. S. Lott, M. D., Winston-Salem, N. C.

The time to operate for appendicitis is when the patient has it.

Now, with this as a premises, the want is, for greater skill in early diagnosis, and more earnest conviction as to the best mode of treatment.

That the subject of treatment is one for discussion and wavering, is most unfortunate—for the victim of the disease; the reason being, that cases of appendicitis left alone, or treated with medicines only, either die, or become permanent cripples and chronic sufferers. Whereas, cases of appendicitis in which the organ is removed, and the adjacent viscera treated in a prompt and cleanly manner, not only get well, in a very large majority, but the patient is left in a more healthful condition.

Picture a perforation of the appendix. And this perforation is sure to occur, sooner or later, which is due to one of two mechanical causes —either an occlusion of its lumen, with an accumulation of explosive material beyond the point of stricture or gangrenous ulceration of its wall, at a given point; and in a large majority of cases the two causes combine to bring about the disaster.

Now, a gun has exploded within the abdomen, and not only is the discharge of filthy ammunition distributed throughout the peritoneal cavity, but the weapon is there, as well.

The signs of this accident are so marked that they should not be mistaken. Pain—sudden, intense and progressive; at first reflected somewhat throughout the abdomen, but soon most marked in the right side, at a point about midway between the crest of the ilium and the umbilicus; this point being well guarded by a rigid right rectus muscle—and marked shock—with a pulse either normal, or only slightly accelerated, and most likely a subnormal temperature.

The leading symptoms are few, but are classical and convincing, from the fact that no other condition produces identical ones. Variations in the point of most exquisite tenderness will occur; and are due to the different directions in which the appendix lies. For instance, I have seen a diseased appendix so much elongated that it crossed the pelvis and was firmly adherent to the left tube and ovary. Thus it may dip well down in the pelvis, its adherent tip causing vesical irritability, or, pointing up, it may be come adherent, and the perforation occur in such close proximity to the liver and gall bladder as to closely simulate impacted gall stone. But in this condition the pain, and point of greatest tenderness, are in the upper third of the right rectus; and also in most cases, the enlarged gall bladder may be felt projecting just below the border of the rib.

Between appendicited and renal colic, the difference is marked. The pain, in the former, being at first, maybe, distributed throughout the abdomen, but locating finally, and exquisitely, in the right side. In the latter, the patient tosses with the pain, which begins in the back, where the kidney is, and follows the course of the ureter to the bladder; as the patient will often mark out with the hand.

The cases in which it is most difficult to make clear the diagnosis, are those of blended pelvic and abdominal pain—in women.

An inflamed tube and ovary, with suppuration pending, or in process, and especially if it be on the right side, give many symptoms which may mislead, but should not. In appendicitis, the pain—at first diffuse—will finally locate, with most exquisiteness, about the middle third of the right rectus; and the tenderness elsewhere, in abdomen and pelvis, will disappear or materially lessen in severity. An examination through the vagina, (and in case of doubt, this should always be made), will reveal a uterus, free, and appendages normal, with little or no tenderness on the left side. Whereas, with an inflamed or suppurating tube or ovary, the examining finger will find the uterus, most likely, fixed, with an enlarged and tender mass on one side or the other, or both, which may in many cases be taken between the two hands, from above and below. Or, if the case has made much progress, the entire pelvis may be found blocked with exudate, the feel to the examining finger being that of a solid wall, above, below, and to each side; (and in case you find this, don't tell them it's the "cellulitis," although it be a rather mannerly way of saying that you don't know). Furthermore, the pain in appendicitis is exquisite and persistent, whereas, in inflamed, and most especially in sup-

purating appendages, it will be intense, but paroxysmal and of an expulsive character; it being the natural function of the female pelvic organs to throw off an additional burden.

Don't wait for a "lump" in appendicitis, which means that the peritoneum is trying to protect itself from the filth with which it has been flooded.

If the lump is inevitable, and must come, a vent in the abdominal wall will favor the cure of the patient. Even a protracted convalescense, with many dressings, is better than a funeral. And, by prompt, cleanly and thorough surgical intervention, both may be avoided.

Recurrent attacks of abdominal pain, locating, chiefly, in the right side, are most apt to be cases of appendicitis. Typhlitis and para-typhlitis, we know to-day to be only symptoms, secondary to the prime cause, which lies in the appendix, and is the one to be removed. Likewise, we know that an inflammatory exudate blocking the pelvis, and resulting in abcess, has its start from an infected focus within tube or ovary, and that early recognition and early removal of this focus of infection, will prevent the catastrophe. Furthermore, we know that many cases of tubercular appendicitis, and of tubercular ovaritis, with recurrent attacks of slight pain, and slight elevation of temperature, are treated throughout weary weeks as cases of "fever," the ominous title, which, like charity, covers a multitude of—ignorance, and furnishes a topic for long-winded papers, which addle our brains, and teach us nothing.

Appendicitis is a surgical disease —which means that it is a specific condition, with a known focus of infection. So long as this focus remains, attacks will recur; and the life and health of the patient are imperiled. Whereas, a vent in the abdominal wall, with clean removal of the focus of infection, and the mechanical irritant, promises best for immediate reaction, and remote immunity.

Early Diagnosis of Tuberculosis the Most Valuable Factor in the Treatment.*

By C. V. Reynolds, M. D., Asheville, N. C.

In 1882 Koch was awarded for his untiring efforts the discovery of the bacillus of tuberculosis, thereby rekindling a latent spark in the medical world, until now we, as medical men, are ablaze with the hope of adding something to illuminate a hidden mystery to the worst enemy mankind is heir to.

Koch did make a wonderful discovery, and great honor is due him, but we err too often in awaiting the diagnosis for the detection of the bacillus.

We are willing to admit that it is the rare exception that the offspring inherits directly tuberculosis, but are afraid that we are a little too scientific for our patients' good and will not allow heredity to occupy its important place. The cellular structure furnished by the male pronucleus, and likewise that of the female, pro vides the material from which the new life builds its fort to stand the

*Read before the Tri-State Medical Association of the Carolinas and Virginia, February 27th, 1902, at their annual meeting held in Asheville, N. C.

storm of its enemy, the infinitely small, yet overpowering bacteria.

If the cells are of pure structure and not weakened by previous invasions of nature's enemy in the mechanism of the maternal or paternal side, then can we say that heredity plays no important part, but until then, remembering the cellular contents are our protectors, we will be compelled to admit our forces will easily be overpowered and the enemy gain possession, and in this instance tuberculosis will be the result.

Assuming then, that heredity does play an important factor in the development of phthisis, we have reached one essential step in battling with this disease.

How to combat this disease is one of the greatest medical questions of the day. First then, we know the history of our subject, and when we come to seek deeper into the hidden mystery of the case, it is all important that we realize what constitutes the normal conditions of affairs, so that we may be able at a glance to recognize abnormalities as they arise.

I believe that it is a substantiated fact that those who fall heir to this disease by heredity are pale, aenemic and of a light physical stature; then when the chest is laid bare, we should at once recognize the diminished antero-posterior diameter with depressions in the supra. and infra. clavicular spaces, the rapid respiratory movements and posterially the "alar chest" with the scapula standing out like sentinels pointing to danger within.

Along with this we find upon investigation, a loss of appetite, strength, night sweats, evening temperature, and probably a history of cough or colds very difficult to relieve.

But there is another class of patients who do not give us such a definite picture. Those are the accidental cases of infection, with their robust physique, no loss of appetite nor night sweats, but come to us with a cough and a feeling of general malaise—we now resort to the microscope to find the blood below par and no tubercle bacilli in the sputa, but instead, the field is filled with streptococci, staphylacocci and diplococci—everything save the tubercule bacillus itself. What shall we do, resort to the tuberculine test? In answer to this question, I would say that the tuberculine, theoretically, should give no ill effect, but it has a selective action producing hyperemic congestion which may cause resolution, or agitate and stimulate an area, death being the result, which otherwise would have remained in its latent state.

One of the most important indications in insipient tuberculosis is the changes in the blood, where we find the hemoglobin diminished, diminished leucocytosis—"those predominant being the uninuclear lymphocites, and now and then a myelocyte" —J. H. Burke.—This being the case even before it is possible to detect the tubercle bacilli in the sputa.

This early diagnosis should be the zenith of our ambition, but as this is not in every case attained, we, with our ever watchful eye, will, at the earliest possible moment, detect these cases in the early stages, where we can at least arrest the trouble.

This brings us to the question, "What shall we do with them?" Recognizing that preceding the de-

velopment of the tubercle bacillus we have the important factor, heredity; second, the changes in the blood; and last, that we often find a forerunner in the sputa, the streptococci, and staphylocci, whose duty it seems to be, to soften, break down and emulsify the soil in the lung tissue, so that the tubercle bacilli enter in to do their destructive work.

It is a recognized fact that prophylaxis is the keynote to success in eliminating this, the most destructive malady we have, but the author of this article will consider this as a decided fact and will deal with those affected. Then the medical profession stands as a unit as to prophylaxis hygiene and constitutional medication, leaving only the adjuvents for us to wrangle and quarrel over.

The first and early diagnosis is the most essential point, and having made our diagnosis, the next thing is to better their hygienic surroundings, and if financially able, change their climates, endeavoring to give them a high, moderately dry atmosphere ladened with ozone and of an even temperature, not forgetting to instruct your patient to place himself with some one of medical skill and ability, whom you may direct, and allow your co-worker to select his idea of a hygienic home.

No physician in a distant land, I care not how trained he may be, is capable of selecting a residence for his patient in a place he is not entirely familiar with—entrust that to your brother co-worker.

You may be of the opinion they need not the care of another physician than yourself. Do not compliment yourself so as to make this gross error—anyone with tuberculosis and its complications needs an ever watchful eye, and woe to the physician who fails to recognize that it is the united efforts of all, we need, in arresting these cases. Many cases have we seen here in this city fast succumbing to the disease, and being wafted to an untimely grave, that if proper care and attention had been given them, would have had their trouble at least arrested. Climatic influence is a great source of benefit—all of us recognize this fact. But this alone is not sufficient. One-third of the tubercular patients sent from their homes are climatic seekers, not health seekers, and who is at fault? The physician who is supposed to be the custodian of health and prescribes at long range, and I may add, misses wide his mark and leaves his patient to roam the world over to scatter the disease to others and to return home unimproved and to die. I say, gentlemen, this class of medical men are a menace to the profession and dangerous to the public welfare. Doctors, "United we stand, divided we fall."

There has been quite a little written lately upholding the home cure of tuberculosis, ignoring climatic influence, which is in my opinion an erroneous idea, and calculated to do great harm at this time when we are making such rapid progress in the prevention and cure of insipient cases, and I further contend that statistics will not bear these gentlemen out in their assertions, and trust that those of us who have read these articles will quickly forget and relegate them to ideas of the past.

Make arrangements to have your patients change their climate at once,

do not attempt to cure them in the same surroundings in which the disease was contracted. The soil is too prolific, and nothing awaits you but to see your patient grow worse, and at last you are compelled to send them away when it is too late, result of which you are sentenced, and your patient dies. Do not attempt to experiment with those entrusted to your care in an effort to allow them to remain at home with loved ones, for experimental medicine is most uncertain. Speak plainly, emphatically, emphasizing the gravity of the situation, and no harm will be done, for truth must survive and it remains for us to decide wherein is truth.

For the second class of patients who are less fortunate, it is our duty to do the best we can, and to work as a united body to get the government to lend us a helping hand, and establish hospitals in selected climates to assist those not able to provide for themselves and thereby aid in restoring these early cases to useful citizenship.

Cures, or arrested cases, are reported from all forms of treatment, and I believe the medical profession stands as a unit in that there is no specific, and that climate, hygiene, nutrition, rest, judicious pulmonary exercise, is the secret of success, but tuberculosis is a complex disease, and by the aid of adjuvants, life is made more vigorous, decay less rapid, and death more remote.

In looking over the field of adjuvants which is the most useful?

First, the great avenue of infection is through the respiratory tract.

Second, the area of disease is located somewhere in the respiratory tract.

Third, allwise nature in endeavoring to throw off this disease is through a respiratory tract.

Fourth, the enemy—the tubercle—is lodged in the respiratory tract.

Then why not by inter-pulmonary medication lend a helping hand in eradicating this disease? Can we reach the air cells by this method of treatment? It has been proven by Homer M. Thomas by microscopical proofs of the penetrability of vaporized medication into the pulmonary alveoli in a paper read before the Missippi Valley Medical Association at Louisville, in 1897.

When reached, does this method of antisepsis prove beneficial? If by no other reasoning than by clinical experience, I would answer this question in the affirmative, and further add that it is of paramount importance. But I can imagine I hear you say as you follow me in my discourse, there is no known antiseptic that can be stood by the lung tissue that will destroy the tubercle bacillus—this may be true, but there are those that will arrest their development, then too, the tubercule bacilli in themselves do not cause the most harm, and would remain relatively inert were it not for their dangerous alliance with the accompanying bacteria—streptococci, staphylocci and diplococci—that break down, destroy and so intoxicate the general system that makes this malady so terrible, and these the antiseptics will destroy, thereby aiding nature's forces (the leucocytes) to attack and destroy the tubercle bacillus.

In the giant cell formation, or the

encapsulated areas where there is no blood supply and no other mode of entrance—I hear you ask, what good can the inter-pulmonary medication do? In answering this, I will ask you, what can any known method do? In these instances we can stimulate cellular activity and render the surrounding neighborhood more sterile, thereby fortifying against our enemy in a more secure manner and aid materially against further extension of the trouble. Barring above claims of inter-pulmonary medication, it is of great value, if for no other reason that it liquifies, or softens the sputa, aiding to arrest the trouble by throwing off, by the mouthful the antagonizing germs.

SUMMARY.

1. We err too often in waiting our diagnosis for the detection of bacillus.

2. Heredity does play an important factor in the development of tuberculosis.

3. Recognize normal conditions in order to be able to recognize abnormalities as they arise.

4. Careful examination of sputum and blood are great aids in the early diagnosis of phthisis.

5. Home treatment should be discouraged—change of climate essential.

6. Very important to have tubercular patient always directly under a physician's care.

7. Climatic influences are of great benefit, but adjuvents are essential in arresting the trouble.

8. Inter-pulmonary medication the most important adjuvent.

A New Method of Treating the Persistent Vomiting in Pregnancy.

Condamin (*Medical Press,* March 26, 1902,) gives a new method of treatment of persistent vomiting of pregnancy. The writer says that although it cannot be said that the principle is altogether new, it is still so excellent that it should be more widely known than it is. The author sees in such vomiting a sign of intoxication and an indication for removal of the toxic substance, whatever it may be. It is his constant endeavor to provide a substitute for the induction of the abortion that such cases generally end in. For some time past he has invariably been able to dispose with this by adopting the following line of treatment:

Absolute abstinence from food for from eight to ten days; daily injections into the rectum of three to four liters of artificial serum in quantities of 300 grammes, with or without the addition of opium; in case of absolute intolerance on the part of the rectum, hypodermic infusion; after ten or twelve days' abstinence from food, gradual return to feeding by the mouth.—*Medical Age.*

The true democratic idea is, not that every man shall be on a level with every other man, but that every man shall be what God made him without let or hidrance.—*Henry Ward Beecher.*

The wealth of a nation then, first, and its peace and well-being besides, depend on the number of persons it can employ making good and useful things.—*John Ruskin.*

AMONG OUR EXCHANGES.

The Origin and Prevention of Oxalate Renal Calculi.

At a recent meeting of the Berlin Medical Society, G. Klemper (*Medical Press,* December 25, 1901,) gave an address on this subject. It is a custom, he said, when an idividual voids a stone with acid urine to order something suitable for the treatment of uric acid calculi. If the stone in question be an oxalate, such treatment would be injurious and would certainly lead to recurrence. If the stone be a real oxalate the situation would be difficult, as up to the present no means has been determined by which a return of the symptoms can be prevented. The speaker, in association with Tripstein, has carried out a series of investigations in the Institute for Medical Diagnosis, and has ascertained that oxalates are not so infrequent as has been supposed. In sixteen cases oxalates were met with five times. In Israel's practice fifty-four per cent. of the calculi were formed principally or in part of oxalates.

The question of prevention is covered by that of the source of oxalate of lime. According to general opinion this is of alimentary origin, spinach especially contains a large quantity of it, about 110 milligrammes in 100 grammes. The gastric juice dissolves the greater part, and 25 to 35 milligrammes passes into the urine. As to what becomes of the remaining 75 milligrammes, the author is of the opinion that it is not destroyed in the tissues. The greater part of the oxalate of lime is destroyed in the intestines, and traces only are found in the stools. He has injected minute doses of oxalate of lime into mice and dogs, and found that all passed off smoothly in both animals. It is not, therefore, destroyed in the tissue changes, but what appears in the urine is absorbed from the stomach. Although oxalates appearing in urine are of an elementary nature, the avoidance of vegetables and fruits in the diet cannot insure urine free from oxalates. The reason for this was not understood until Sommel, of Munich, showed that when gelatin was given 4 to 15 milligrammes of oxalates were found. This discovery drew the speaker's attention to glycocol, which is known to be a solvent for oxalates. Now creatin is a glycocol derivative that plays an important part in the system. It forms both urea and oxalic acid. The glycolic acid present with bile is also important, as when this is absorbed glycocol becomes free, and the formation of oxalates is possible. In the icterus of resorption also oxalic acid becomes free.

These facts tend to an explanation of the origin of oxalates. The aim now should be not to avoid substances containing oxalates, but to facilitate its solution in the urine. The double phosphate of soda, the author thinks, is not sufficient for the purpose, but there is another material that acts in the right direction—magnesia. It has been shown that oxalate of lime is soluble in salts of mag-

nesia when heated. A milk diet is unsuitable, as it is poor in magnesia and rich in lime. If food is divided according to its richness or poverty in lime into two groups, vegetables would belong to the first, and to the latter, fish and the different kinds of meat. Milk and eggs are to be carefully avoided when there is a tendency to oxalates. In cases with such tendency he recommends the avoidance of milk, eggs and vegetables, and in their place recommends flesh, vegetables and farinaceous foods, and in the way of medicine two grains of bitter salts daily.—*Medical Age.*

"Christian Science."

Absolutely correct is the *Philadelphia Medical Journal* when it observes that "Christian Science needs the attention of the legal rather than of the medical profession. It has assumed the proportions of a colossal financial fraud, and we doubt whether the fulminations of the whole medical press will prevail against it. The hand of the law alone can deal with it. If any one doubts this fact, let him read the expose of Eddyism recently published by Frederick W. Peabody, Esq., of the Boston bar. The lawyer reveals with a bold and merciless pen, the transactions by which Mrs. Eddy has amassed a fortune."

Doctors know full well that devotion to the delusions of the modern fad skirts the borderland of insanity and while professional dignity would almost preclude medical men from noticing the fad and fraud, yet duty to its innocent victims demands unceasing efforts towards showing up the unsavory crew.

In his masterly address Mr. Peabody says: "The influence of Mrs. Eddy is infinitely harmful. It is literally demoralizing thousands of people. It is remorselessly separating husband and wife, parent and child. It is turning from the pursuit of knowledge and steeping in the superstition of the Middle Ages, untold thousands. It is the mother of a new-old witchcraft, which has so taken possession of the minds and lives of many people that they live in constant terror of its believed baneful work. Unless you know it to be a fact, as I do, that right here in the city of Boston there are hundreds and hundreds of people living in the confident belief that the malicious minds of others have the power to cause, and are causing disease and death and all forms of domestic, social and business disaster, it will be difficult for you to believe it. This belief among Christian Scientists has reached the proportions almost of panic."—*Medical Mirror.*

Cauterizing the Eyeball.

Vallin (*Medical Press,* Jan. 8, 1902) contributes a paper on the substitution of cauterizing the eyeball for enucleation in children. He says enucleation of the ocular globe in children is a deplorable operation on account of the deformity which results, and which becomes more exaggerated as years advance. Except in the case of malignant tumors, recourse should be had to the method recommended by Dianoux, and which consists in practicing on the cornea, without however opening the anterior chamber, a cauterization in the form of a star with the point of a thermocautery maintained at a low

red heat. That done, a circle is traced around the center of the cornea, and the disk thus circumscribed is pierced quickly in the center with the point of the thermocautery brought to a white heat so as to allow the aqueous humor to escape.

The wound is then powdered with bismuth, and a compressive bandage applied for three days. At the end of that time the bandage is removed and the parts washed with boiled water, and solution of cocaine and eserine instilled between the lids each day until the wound has cicatrized. After all irritation has disappeared massage is practiced for a few days, and finally the cornea is tattoed.

In all the cases treated by this method the results were very satisfactory.—*Med. Age.*

Therapeutic Hints.

Dr. S. Baruch is of the opinion that the principal reason for disappointing results with the salicylates in acute articular rheumatism is to be found in the use of inadequate doses. For the last six or eight years he has made use of the pure salicylic acid made from the oil of wintergreen in combination with bicarbonate of soda, thus making the salicylate of soda extemporaneously. He generally gave it in doses of 20 grains of pure salicylic acid combined with ten grains of sodium bicarbonate. If possible, he avoided giving it until 4 o'clock in the afternoon, and repeated it at intervals of two hours until eighty grains had been taken. There is no use in giving the salicylates unless tinnitus aurium was produced, but most of this would pass off during the night. The treatment of the disease was assisted by the application of a cold wet compress to the affected joint. The compress should be made of three or four thicknesses of linen wrung out of water at 60 degrees F. and covered with a layer of flannel. The compress should be renewed at intervals of two or three hours. If the fever were quite high the compress should be applied very wet. As a rule, he did not employ these compresses unless the body temperature was over 100 degrees F. As a rule, an ice bag should not be applied continuously for more than half an hour, for, it produces a localized cyanosis by a paralysis of the cutaneous circulation. The ice bag should be applied in this intermittent manner over the precordium.

Cuspidors for Railway Cars.

The board of health of the State of Pennsylvania has adopted resolutions requiring cuspidores in the trains of the Pennsylvania Railroad and Philadelphia & Reading Railway, and is attempting to secure legislation inflicting a penalty for infringement of the rule. The tentative provisions of the resolutions require a cuspidor for each seat in the smokers' car and one at either end of the day coaches. In addition, rigid sanitary precautions will be required in the thorough cleansing and disinfection of the receptacles at the end of each run. In the communication to the railroad companies the board cites the fact that the latest statistics of the Unied States government shows that three fourths of all the men use tobacco, 80 per cent. expectorate, and 12,000,000 smoke. The railroad authorities

look upon the requirements outlined as entailing a hardship upon the roads and propose that the Pennsylvania Legislature, instead of requiring the installation of cuspidores, should follow the example set by the State of New York and make expectoration in cars or on stations a misdemeanor, punishable with fine or imprisonment.—*N. Y. Med. Journal.*

"Osteopathy" in Illinois.

We congratulate the Illinois State board of health on its final success in the prosecution of one Joseph P. Gordon for illegal practice. The Illinois law authorizes the board to classify applicants for its license into those who wish to practice medicine in all its branches and those who intend to carry on the practice of some real or pretended system of healing, but they must all acquire a license. Gordon had not applied for a license, and in his testimony he said: "I understand nothing about medicine." He professed to make diagnoses, however, and he alleged his immunity under the law, gounding his allegation on the pretense that his system of treatment was "magnetic" or of the nature of suggestion, although his own testimony showed plainly that manipulation was his one therapeutical resource. The circuit court, apparently accepting this quack's sophistry, instructed the jury to find for the defendant, and the appellate court affirmed that judgment, but it has been reversed by Chief Justice Wilkin, of the supreme court, whose opinion is an admirable example of common sense reasoning. —*N. Y. Med. Journal.*

Newspapers and Narcotics.

The newspapers of the city recently and very properly have been agitating against the general sale of cocain, which is reported to be going on. Cocain wholesales at $6 an ounce, and one druggist here is reputed to buy the drug in 100-pound lots. But the newspapers miss the real source of danger, which lies in the multitude of patent medicines bought freely by the public and containing as their only active agents morphine, cocaine and other narcotic drugs. It is these which give to many unfortunates their first taste for "nerve-tickling" and soul-destroying drugs. If the newspapers are sincere in their desire to protect the community from degrading drug habits, they can do two things which will be of the greatest benefit to the community; first, agitate for a law compelling the makers of patent medicines to publish the true formula of their compounds on every bottle; and second, refuse to advertise those patent medicines which are well known to contain no active ingredient except one or more of the narcotic drugs. Will the newspapers do the community this real service?—*Cleveland Med. Journal.*

Dermatitis Herpetiformis in Childhood.

Dermatitis Herpetiformis, first described by Professor Duhring, of Philadelphia, is probably of commoner occurrence than is generally supposed, more especially in children; two cases are described by William S. Gottheil, of New York, in the June number of the Ar-

chives of Pediatrics. The resemblance at first sight to ordinary eczema, dermatitis or impetigo is marked and doubtless cases of the disease are not infrequently so classified. The points which distinguish the less common affection are:

1. The extreme obstinacy and chronicity of the malady; it being prolonged almost indefinitely by successive exacerbations or relapses.

2. Its original herpatic character and subsequent multiformity of lesion.

3. The intense pruritus.

4. Its recalcitrancy to treatment.

Any apparent eczema, dermatitis or impetigo in children presenting these features should be carefully observed; a certain number of them will undoubtedly be found to be cases of Duhring's disease.

Mosquitos and Malaria.

Press dispatches from Japan state that remarkable results have been have been obtained relative to the mode of infection in malarial disease by experiments conducted by the Japanese military authorities in Formosa. A battalion of soldiers, completely protected from mosquitoes for 161 days during the malarial season, escaped the disease entirely, whereas there were 259 cases of malaria in an unprotected batallion in the same place and during the same length of time. These results, if correctly quoted, confirm in a most conclusive way the fact that malaria can be transmitted only by means of the mosquito, and call for the establishment of organized effort for the extermination of organized effort for the extermination of these annoying and pestiferous insects in malarial localities. That such a comprehensive test, so valuable is its results, should be carried out by the Japanese is evidence of acquaintance with and interest in the latest advances of medical science.—*Medical Record.*

The Best Method for Administering Quinine as a Preventive of Malarial Fever.

E. H. Read (*Journal of Tropical Medicine,* January 15, 1902,) concludes from his experience that the best way of giving quinine as a prophylactic is the following: 1. For male adults in good health, tablets in 15-grain doses every fifth day; for those in poor health, the solution used in the same way, or 15-grain powder in a tablespoonful of porridge or milk. 2. For female adults, 8 grains should be given instead of 15; pregnant women may take 2½ grains daily, in either of the above ways, from the beginning of pregnancy. 3. Children of either sex under one year, ½ grain of the powder every third day in a spoonful of milk, followed by a spoonful of jam or honey; those from one to five years, 1 grain every third day; from five to ten years, 2 grains every third day; from ten to fifteen years, 3 grains; above 15 years, the ordinary adult dose, taken in the same way—*Medical Age.*

Routine Medical Practice.

We all have our therapeutic ruts, and we all know consultants from whom patients find it very difficult to escape without their favorite prescription, no matter what the malady may be. Men of this stamp gain

a certain measure of experience, and if not of a practical turn, may become experts in mechanical procedures, but to experience in the true sense of the word they never attain. In reality they suffer with the all-prevailing vice of intellectual idleness. It is so much easier to do a penny-in-the-slot sort of practice, in which each symptom is at once met by its appropriate drug, than to make a careful examination and really to study the case systematically.—William Osler in *Merk's Archives.*

The Doctor's Conscience.

The following tale, which if not true is "ben trovatore," is told of a deceased well known London physician whose pride it was to declare that he could feel a patient's pulse, auscultate him, write a prescription and pocket a fee in a space of time varying from three to five minutes.

One day a man was shown into the consulting room and was rapidly examined. At he conclusion he shook hands with the doctor and said:

"I am especially glad to meet you, as I have often heard my father, Colonel ——, speak of his old friend, Dr. ——."

"What," cried the doctor, "Are you Dick ——'s son? My dear fellow, fling that prescription into the fire, and sit down and tell me what is the matter with you."

Sprinkling to Reduce Temperature.

Dr. S. Solis Cohen has for some time used sprinking of fever patients for the reduction of temperature. The water ranges from 60 to 70 degrees F., and is poured from an ordinary sprinkling pot. A rubber sheet is placed under the patient, with the head of the bed raised, and so arranged by folding that the water runs off from the foot of the bed into a receptacle. To this may be added rubbing with ice if the temperature is very high.—*Medical Council.*

A Wise and Humane Law.

A statute of the State of Connecticut authorizes the voluntary self-commitment of alcoholic and narcotic sufferers to any inebriate sanitarium, established by the laws of the State, for a period not exceeding one year, during which time they shall continue subject to restraint and treatment the same as if committed by the Probate Court. Hence, for these purposes the sanitariums of Connecticut have become famous throughout the United States.

The War Department has recently directed that one of the seacoast defences near Baltimore, Md., shall hereafter be known as Battery Lazear. According to the order this action was taken in honor of Dr. Jesse W. Lazear, late an acting assistant surgeon, United States Army, who, while on a visit to Las Animas Hospital, Havana, Cuba, September 13, 1900, and while collecting blood from yellow fever patients for scientific study, was bitten by a Culex mosquito and deliberately allowed it to satisfy its hunger, and as a result contracted yellow fever, of which he died September 25th, 1900, thus by his self-sacrifice positively determining that the mosquito carries yellow fever infection.

NATURE AND SCIENCE.

(Youth's Companion.)

The Origin of Precious Ores.

Men sometimes dream of enormous wealth stored deep in the earth, below the reach of miners, but according to the statement of Prof. C. R. Van Hise, at the Denver meeting of the American Association for the Advancement of Science, there is little or no ground to believe that valuable metallic deposits lie very deep in the earth's crust. Such deposits, he said, are made by underground waters, and owing to the pressure on the rocks at great depths, the waters are confined to a shell near the surface. With few exceptions ore deposits become too lean to repay working below 3,000 feet. Nine mines in ten, taking the world as a whole, are poorer in the second thousand feet than in the first thousand, and poorer yet in the third than in the second.

Hibernation of Mosqiutoes.

If the mosquito has any friends among mankind, they may rejoice in the assurance given by Dr. L. O. Howard, of the Department of Agriculture, that this cosmopolitan pest does not necessarily perish with the oncoming of winter. On the contrary, mosquitoes have been observed in the lattitude of Washington to hibernate, adult specimens living from November until the succeeding April or May with all their powers of torment unimpaired, although their activity is suspended in winter. The mosquito needs but little food, and it is the female that thirsts for blood, the males contenting themselves with water and vegetable fluids. Doctor Howard ascribes the fact that mosquitoes are often found upon dry praries, many miles from water, to the longevity of the adults of certain species, which enables them to survive seasons of drought. Railroads have been responsible for the transportation of mosquitoes into regions where they were previously rare. Their power of flight is not great, and it is believed that they are not distributed far through the agency of winds.

Sand-Buried Documents in Turkestan.

In his explorations of Chinese Turkestan, Dr. M. A. Stein, has found, in some of the sand-covered towns and villages, many documents written on wooden tablets and carefully sealed, which when deciphered, will probably throw much light upon the life of the people who formerly dwelt in this desert. The preservative properties of the sand have kept

the ink black and the seals and binding-strings intact. The script in which the documents are written is of a still existing form known in India. Some of the buried towns are 100 miles from the present edge of the desert, and one of them covers, with its scattered ruins of dwellings and shrines, a space of 24 square miles.

Peculiarities of the Black Sea.

Sir John Murray recently showed how remarkably the Black Sea differs from other seas and oceans. A surface current flows continuously from the Black Sea into the Mediterranean, and an undercurrent from the Mediterranean into the Black Sea. The latter current is salt, and, being heavier than the fresh water above, it remains stagnant at the bottom. Being saturated with sulphurretted hydrogen, this water will not maintain life, and so the Black Sea contains no living inhabitants below the depts of about 100 fathoms. The deeper water when brought to the surface smells exactly like rotten eggs.

The Teeming Veins of the Earth.

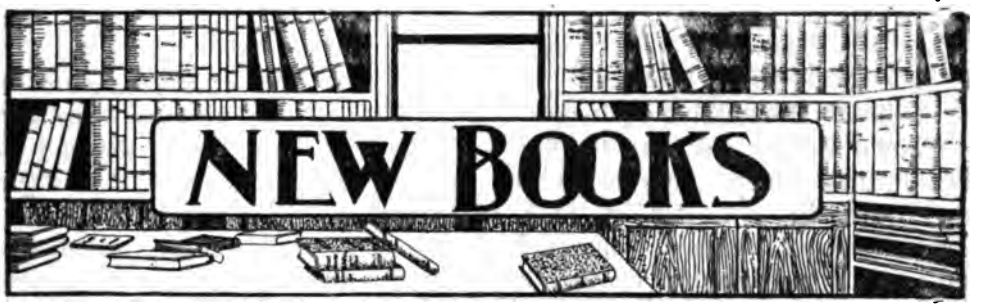
One of the most interesting results of practical geology in our time is the discovery of rich supplies of subterranean water under many of the dry and desert regions of the earth. Attention has frequently been called to the utilization of these discoveries in the western and southwestern parts of the United States, and it appears that other lands are equally favored with hidden treasures of life-giving water. The Geological Survey of Queensland, Australia, reports that south of the Gulf of Carpentaria, water-bearing strata occur at depths of 2,000 and 3,000 feet, from which artesian wells draw supplies varying from 100,000 to 1,000,000 gallons a day.

"Dust Devils" of the Desert.

Travelers in the celebrated Death Valley of California have described the wonderful contortions of the sand-pillars that small whirlwinds sometimes send spinning across the hot plain. Even more remarkable are the "dust devils" seen by Mr. H. F. Witherby, the English explorer, in the valley of the White Nile. Sometimes two of these whirling columns, gyrating in opposite directions, meet, "and if they be well matched the collision stops them, and a struggle ensues as to which way they shall twist. Gradually one gains the mastery, and the two combined begin to gyrate alike and then rush on together." Some of these whirls will strip the clothes from an Arab's back, or twist a goat round and round like a top.

Nature of the Sun's Corona.

Professor W. W. Campbell, the director of the Lick Observatory, in summing up the results of the observations and photographs made by the party sent from that conservatory to study the total eclipse of the sun in Sumatra last May, says that the general conclusion to be drawn is that coronal structure surrounding the sun is made up of matter, probably very finely divided, ejected from the surface of the sun with great velocities, just as we have matter ejected now and then from terrestrial volcanoes, with comparatively small velocities.



A SYMPOSIUM ON SYPHILIS, by seventeen different authors of reputation, by E. B. Treat & Co., New York. A well printed book of 125 pages. $1.00.

This little book contains much that should interest the practitioner. The table of contents will indicate its usefulness.

The Etiology of Syphilis; The Clinical Characteristics of Chancre; The Unrecognized Chancre; Unrecognized Syphilis in General Practice; Syphilis of the Stomach, of the Nervous System, of the Bronchix, Lungs and Pleura, of the Nose and Throat; The Curability of Syphilis; Diagnosis and Management of Syphilis; Diagnosis and Management of Syphilis; Treatment of Syphilis.

THE OUTLOOK.—There are several notable pictoral features of peculiarly timely interest and also others of an artistic flavor in the Magazine Number of The Outlook for May. In the first class may be named that describing District Attorney Jerome's official home on the East Side of New York, and that of the King of Spain, who this month becomes king in act as well as in name, by General Stewart L. Woodford, formerly United States Minister to Spain. Art and music are respectively represented by an article on the great Spanish painter, Sorolla, written by one of his pupils and illustrated by reproductions of paintings and original sketches, and by a thoughtful critical and personal article on the work of Grieg by Daniel Gregory Mason. Western interests and commercial interests are brought to the front by Mr. Ray Stannard Baker's "The Commerce of the Great Lakes," which is as well informed as it is readable, and is made picturesque by a dozen or more illustrations relating to the shipping and commerce of the lakes. Articles relating to the spring season are, Mr. John Burroughs' little out-of-door poem called "A Spray of Arbutus," and Mr. J. H. McFarland's "A Story of Some Maples," which is illustrated with many exceedingly beautiful photographs of trees and their flowers, taken by the author.

"THE COW PEA" is the title of the latest publication issued by the Experiment Farm of the North Carolina State Horticultural Society at Southern Pines, N. C. This book neatly bound and illustrated in plain and concise manner discusses the value and uses of this important crop,

the cow pea. Every reader can get a copy free by writing to the Superintendent of Experiment Farm, Southern Pines, N. C.

Chronic Progressive Deafness.

Mayo Collier discusses the form of deafness which occurs insidiously, without pain or discomfort in the ears, and only becomes apparent to the individual when a marked impairment of hearing has taken place. He believes that in the associated conditions of a chronic cold in the head with partial obstruction to nasal respiration there is every factor necessary to produce the condition known as sclerosis of the middle ear. Detailed reasons are given for this belief. Cases taken early can be improved; even cases considered incurable can often be greatly helped. The nose may be quite free, but the septum may have a depression corresponding to the convexity of the lower turbinal body, and on the pharynx there may be patches of atrophy with dilated veins and islets of enlarged gland substance. On trial of the Politzer bag one will probably fail to get air in, but after an antiseptic and astringent wash, perhaps in a week's time, air will enter. The galvanocautery will put a stop to this latent obstruction and relieve the congestion of the nasal and postnasal space by letting in air, and give tone to the vessels. The nose being ventilated and the potency of the Eustachian tube restored, the drum head should be daily exercised by gentle movements imparted by Politzer's bag and Seigle's aspirator. In a large percentage of cases this results in marked and permanent improvement of hearing.—*Medical Press and Circular.*

The following passage occurs in Brydone's "Tour through Sicily and Malta," written toward the end of the eighteenth century: "There are here a number of particular conversations every night, and what will a good deal surprise you, they are always held in the apartments of the lying-in ladies, for in this happy climate child-bearing is divested of all its terrors, and is only considered as a party of pleasure. This circumstance we were ignorant of until t'other morning. The Duke of Verdua, who does us the honour of the place, with great attention and politeness, came to tell us that we had a visit to make that was indispensible. 'The Princess Paterno,' said he, 'was brought to bed last night, and it is absolutely incumbent on you to pay your respects to her this evening.' At first I thought he was in joke, but he assured me he was serious, and that it would be looked upon as a great unpoliteness to neglect it. Accordingly, we went about sunset, and found the princess sitting up in her bed, in an element undress, with a number of her friends around her. She talked us usual and seemed perfectly well. This conversation is repeated every night during her convalescence, which generally lasts for about eleven or twelve days. The custom is universal; and as the ladies here are very prolific, there are, for the most part, three or four of these assemblies going on in the city at the same time."

Medical News and Items.

Virchow is progressing slowly toward recovery.

The smallpox epidemic throughout the West is considered to be the most serious outbreak since 1885.

Cholera is spreading in Manila and in the country surrounding. 568 deaths have been reported to date.

Andrew Carnegie has given $50,000 for the erection of a hospital in Pittsburg to give first aid to injured workmen.

The Battle Creek Sanitarium which was recently burned, entailing a loss estimated at $400,000, will be rebuilt immediately.

A bacteriological laboratory for the study of the plague is to be established at Silvi-Bouron, on the Bosphorous, near Beicos.

Influenza is prevailing to a greater extent than for several years past in London, where it has caused a decided rise in the death rate.

The authorities of Yale College have announced that hereafter the course in the Yale Medical School can be made in three years, instead of four.

Drs. Charles J. Keller and Morris C. Robins, Baltimore, were jointly sued in the Court of Common Pleas for the death of an infant 9 months old. It is alleged that the child's death was caused by the wrongful and unskillful use of chloroform in a surgical operation without the knowledge or consent of his parents.

The eighth annual meeting of the American Laryngological, Rhinological, and Otological Society will be held in the city of Washington June 2, 3 and 4.

The health department of Baltimore has detailed a detective to ride in street cars and warn spitters of the ordinance against expectoration. Later, arrests will be made.

It is stated in the London daily papers that Dr. Ross has succeeded in cultivating the germs of cancer and has produced a malignant neoplasm by inoculating a guinea pig with the culture.

Dr. J. Alison Scott has been elected professor of clinical medicine and therapeutics in the Philadelphia Polyclinic and College for Graduates in Medicine, to succeed Dr. S. Solis Cohen, who resigned about a month ago.

A bill providing for the creation of a separate board for the examination and licensing of persons desiring to practice osteopathy in the State of Virginia has been killed in the committee of the State Senate on general laws.

Surgeon Joseph J. Kinyoun, U. S. Marine Hospital Service, stationed at Detroit since his transfer

from San Francisco a year ago, has resigned, and will reside in Philadelphia and devote himself to bacteriologic work.

One of the measures adopted in the campaign against charlatanry being waged in Germany, is the publication in the medical journals of descriptions of the nature of the most widely advertised quack medicines.—*Exchange.*

McKinley's Doctors' Bills.—The bills for attendance on President McKinley have been formally presented. The sum total is said to be in the neighborhood of $100,000. Senator Hanna will present the bills to Congress for payment.

A hospital car was attached to each of the five trains required to transport the 29th Infantry from Fort Sheridan to San Francisco, en route to the Philippines. This was rendered necessary by the prevalence of measles at the post.

Slim Diet.—"Greater" New York feeds her almshouse inmates at a cost of about ten cents a day. The bill of fare has been bread and coffee for breakfast, bread and stew for dinner, varied by bread and tea for supper. No sugar, butter or vegetables.

Plague in India.—The latest reports from India with regard to the plague, reveal a fearful condition of affairs in some parts of that country. The death rate is appalling. One dispatch to the Exchange Telegraph Company from Lahore, Punjab Province, March 22, places the mortality at 2,000 daily. It is said to be the worst epidemic on record, and the failure of the authorities to check its spread is largely due to the policy of non-interference where caste customs are concerned.—*Med. Record.*

Newspaper Medicine.—The *Virginia Medical Semi-Monthly* for February 21st, cites the following from a country newspaper: Mrs. Thomas —— was operated on this morning at the home of her son Alfred, for necrosis of the bone, by Dr. ——, assisted by Dr. —— and Dr. ——. A piece of dead bone was removed from the tibia of the right eye.

Fatal Accident in Brockville Hospital, Canada.—Miss Mary E. Jackson, 24 years of age, a nurse in training at the Brockville General Hospital, drank mercurial solution on the night of the 21 and died the following day. The bottle was labeled magnesium sulphate and she drank about two ounces. It was, however, a solution of bichlorid of mercury.

Surgeon-General Sternberg has recommended that Contract-Surgeon James E. Mead have a commission as captain and assistant surgeon of volunteers on account of gallant conduct and professional zeal in the Philippines. This action is taken on the recommendation of First Lieutenant Louis Van Schaick, Fourth Infantry, endorsed by General Chaffee and Lieutenant-Colonel B. F. Pope, chief surgeon of the Division of the Philippines.

A New York legislator has introduced a bill requiring that in any operation on a woman in any hospital, medical college or elsewhere, there must be in attendance three of her nearest relatives, who must remain with her until she is returned to bed. There must be absolutely no

exposure other than is necessary for the operation, and the attendance of the relatives, it may be presumed, is to enable them to make any protests or criticisms they may feel called upon to utter if any detail of the operation shocks their sensibilities. It would be interesting to see how such a law would work.

An evening office for medical treatment at moderate prices for the poorer classes will be opened soon, says *American Medicine*, in the central part of Philadelphia, under the management of Drs. Gertrude Walker, Kate Baldwin and Alice Norton. This place has the support of the 1,300 members of the Pennsylvania Association of Women Workers and many well known physicians, and has for its aim the establishment of a middle point between the physician's office and the free clinic to reach a self-respecting class who will not receive treatment at the hospital clinics, and who have not the means to employ a specialist.

Prize Essay on the Dangers from Self-Drugging with Proprietary Medicines.—The Colorado State Medical Society offers a prize of twenty- five dollars for the best essay, for circulation among the laity, upon the dangers of self-drugging with proprietary medicines.

The competition is open to all. Essays must be typewritten in the English language, must contain not more than 3,000 words, and must be submitted before June 15, 1902. Each essay must be designated by a motto, and accompanied by a sealed envelope, bearing the same motto, and enclosing the name and address of the author. The essay receiving the prize will become the property of the society for publication. Others will be returned to their authors. Essays should be sent to the Literature Committee. Dr. A. C. Graham, Secretary, Steadman Block, Denver, Colorado.

Sudden Death Due to Dyspepsia.—Lancereaux states that dyspepsia is an important factor among the causes of sudden death. The physiologists have offered the explanation for sudden death coming after a shock to the epigastrium, that it is due to an excitation of the nervous system. In legal medicine a number of like cases are reported under the term inhibition. A pathological condition of the stomach often plays the same role. A proof of this is the frequency of sudden deaths soon after eating. The writer reports a case of sudden death due to excitation of the nervous filaments of the gastric mucosa. He also cites cases of sudden death in individuals without objective lesion of the heart or vessels, but who are suffering from gastric affections. Diet will often prevent these accidents. If they occur, rythmic traction of the tongue and flagellation will help to combat them. Sudden death may also be due to the condition of the respiratory mucosa.—*La Tribune Medicale,* March 12, 1902.

Preliminary Announcement of the State Society Meeting.

The Society will be called to order Tuesday morning, June 10th, at Wilmington.

The following partial programme will be given:

"Uric Acid Excess," by D. J. Hill, M. D.

"So-Called Dyspepsia," by C. A. Julian, M. D.

"Pulmonary Tuberculosis," by S. H. Von Ruck, M. D.

"Medical Jurisprudence," by J. L. Nicholson, M. D.

"Inebriety," by Chas. Duffy, M. D.

"Smallpox," by J. P. Macon, M. D.

"Public Charities," by S. E. Koonce, M. D.

"Morphinism," by W. P. Ivey, M. D.

"Creosote," by J. B. Wright, M. D.

"Commercialism," by B. R. Graham, M. D.

"Recent Remedies," by W. W. McKenzie, M. D.

"The Urine," by Frank O. Rogers, M. D.

"Appendicitis," by J. M. Parrot, M. D.

"Alcohol,"by C. S. Mangum, M. D.

"Intubation," by J. W. Long, M. D.

"Relief Departments in Railway Surgery," by G. G. Thomas, M. D.

"First Aid in Railway Surgery," by R. B. Miller, M. D.

"Railway Surgery," by J. H. Manning, M. D.

"Practical Anatomy," by Gwilynn G. Davis, M. D., of Philidelphia.

"Cancer of the Uterus," by J. Ernest Stokes, M. D.

"Fibroma of the Uterus," by H. A. Royster, M. D.

"Causes of Gynecologic Disease," by Wm. A. Graham, M. D.

Quite a number of other papers are promised in time for the final programme, which will be issued June 5th.

The annual debate will be opened by A. A. Kent, M. D.

The annual essay, by Eug. B. Glenn, M. D.

The annual oration, by John C. Rodman, M. D.

The programme, when complete, will be more than interesting, and no physician can afford to miss this meeting of the society. Every member should come and bring a friend. The meeting will, so we learn, be held in the elegant Seashore Hotel—by the side of the broad and cool Atlantic. Rates, $1.50 per day.

The following railroad rates will apply from junctional points, viz:

FROM.	VIA.	RATE.
Charlotte.....	So. Ry., S. A. L.	7.75
Danville.....	So. Ry.	10.50
Durham.....	So. Ry.	7.00
Fayetteville....	A. C. L.	4.05
Goldsboro.....	A. C. L.	4.05
Greensboro.....	So. Ry.	8.70
Henderson.....	S. A. L, So. Ry.	7.00
Maxton.....	S. A. L.	4.25
Norfolk.....	A. C. L. S. A. L.	10.85
Raleigh.....	So. Ry., S. A. L.	6.55
Rural Hall.....	So. Ry.	10.10
Sanford.....	S. A. L., A. C. L.	5.45
Selma.....	So. Ry., A. C. L.	5.10
Suffolk.....	S. A. L., A. C. L.	10.25
Weldon.....	A. C. L., S. A. L.	7.00
Winston-Salem.	So. Ry.	8.70

Tickets to be sold June 3d, 4th, 9th and 10th, final limit June 16th, 1902; continuous passage in each direction.

For Warts.

Apply once daily, carefully, by means of a glass rod, one drop of a saturated solution of sodium hydroxide. In two or four days, further application will not be needed.

Or, apply to the top of the wart several times daily, a drop of the acid nitrate of mercury.

Many Notable Cases

Have been cited by eminent Medical authorities, affirming the goodness of

TONO NERVINE TABLETS

A scientific exhibit of a combination of well known drugs of

RECIPE	
Ext. Sumbul	1-8 gr.
Phosphorus	1-100 gr.
Ferri Carb.	1 gr.
Ext. Nuc. Vom.	1-10 gr.
Ext. Damiana	1 gr.
Asafetida	1-8 gr.

Chocolate Coated

the highest possible quality and at once recognizable by the therapeutist

As a Most Valuable Nerve Tonic

As a protection to the Doctor these tablets are issued in bottles of 100 only, and we advise prescriptions calling for original packages.

Samples and Literature on request.

(FROM VENTRICULUS CALLOSUS GALLINACEUS)

INGLUVIN

SUPERIOR · TO · PEPSIN · OF · THE HOG

A POWDER PRESCRIBED IN THE SAME MANNER AND DOSE AS PEPSIN, WITH BETTER RESULTS.

A SPECIFIC FOR VOMITING IN PREGNANCY

A Sovereign Remedy in all Stomach Troubles

Valuable as an adjunct to Calomel administration

WM. R. WARNER & CO.

PHILADELPHIA NEW YORK CHICAGO NEW ORLEANS

BALTIMORE SAN FRANCISCO LONDON, ENG.

THERAPEUTIC HINTS.

For Glaucoma.

Polyclinique, March 1st, recommends, in cases of sub-acute or chronic glaucoma, the instillation every evening of one drop of the following collyrium:

℞ Eserine sulphate.....$\frac{1}{100}$ of a grain;
Pilocarpine hydrochloride.3 grains;
Cocaine hydrochloride ..1½ grains;
Distilled water.....150 minims.
M.

In acute attacks two instillations daily may be made.

Local Treatment of Leucorrhea.

The following is recommended by Lutand, to be used locally in treatmert of leucorrhea:

℞ Pot. chloratis	℥ iss	45
Tinct. opii.....	℥ i	31
Aq. picis liq.....O. ii		596

M. Sig.: One-half a glass to be used in a quart of water as a douche night and morning.

Some Applications of Hot Water.

Headache almost always yields to the simultaneous application of hot water to the feet and back of the neck.

A towel folded, dipped in hot water, wrung out rapidly and applied to the stomach acts like magic in cases of colic.

There is nothing that so promptly cuts short congestion of the lungs, sore throat or rheumatism as hot water when applied promptly and thoroughly.—*Medical Mirror.*

Diarrhea in Tuberculosis.

According to *Pac. Med. Jour.,* the following is of great service in checking diarrhea in tuberculosis:

℞ Ichthoform	gr. v	33
Tannalbin		
Bismuthi subgal-, āā .....gr. x		66
Codeinæ sulph. .....gr. ¼		015
Olei menth. pip.....m. ¼		015

M. Ft. chartula No. i. Sig: One such powder every two to six hours.

An Ointment for the Pruritus.

The *Gazette hebdomadaire de medicine et de chirurgie* for February 23d attributes the following formular to Brocq:

℞ Lanolin .....1 ounce;
Petrolatum .....1½ ounces;
Menthol ....10 grains;
Carbolic acid.....12 grains;
Salicylic acid .....2 drachms;
Zinc oxide.....5 drachms.
M.

Newer Materia Medica.

Original Communication.

Written for Carolina Medical Journal, by E. Leo di Mazzini, A. M., M. D., D. Lit and Sci., F. T. S., M. S. M. A., Jackson, Mich.

In that nervousness resulting from excessive and exhaustive brain work, and other causes which bring on such conditions, as insomnia, prostration, and its sister disorders, I have never found anything of such incalculable benefit as Celerina (Rio) in conjunction with electricity.

It is not like many so-called tonics, a mere temporary stimulant to the heart, and then a depressant, but from what I know by its repeated application and use, it is permanent in its effects. It, to my mind, approaches the nearest to an ideal tonic of anything I ever knew, for unfortunately too many of our so-called tonics are merely temporary heart stimulants, leaving bad after-effects and not a tonic in the proper sense of the word, as a tonic proper should not only stimulate but also feed and nourish as well, in order to do any direct good. This latter effect is what I have invariably experienced with Celerina. I have also obtained brilliant results from its uses in paralysis and alcoholism. In dyspepsia with nervous debility, I am in the habit of combining it with Fes. Ext. Hydrastis, and always get curative effects. In alcoholic catarrh of the stomach I combine with S. H. Kennedy's Extract of Pinus Canadensis.

In Bright's disease and diabetes, of which I make a specialty, I find no agent to equal Celerina. My combination is as follows:

℞ Celerina (Rio)..... .....
Lithiated Hydrangea āa .... ʒviii

M. Sig.: One dessert spoonful four times daily.

Sanmetto in Genito-Urinary Troubles and in Diseases of the Mucous Membranes of a Chronic Character.

I do not generally endorse proprietary medicines, but Sanmetto is such an elegant combination that I must make an exception in its favor. I have used several bottles of it in my practice with the most gratifying and surprising results. I used it in a case of inflammation of neck of bladder. Have also used it in several other cases and will say that I have never used any preparation which has given me such satisfactory results in genito-urinary diseases as does Sanmetto. I am afraid that the druggist, in one case, substituted the elixir of saw palmetto, which they have tried to have me use instead of Sanmetto, as it did not taste as it should, but I have tried so many preparations of saw palmetto with no beneficial results, that I want the genuine Sanmetto or none.

H. G. Peck, M. D.
Racine, Wis.

Ecthol is an American preparation made from a mixture of the fluid extract of thuja and echinacea augustifolia. The latter is a plant belonging to the natural order of compositae, which grows in North America. The fresh root of this plant is in high favor with the Indians as an antidote against the bites of serpents. Dr. Stinson found that this plant promotes the flow of saliva, is a mild and inoffensive antiseptic, and, above all, an aphrodisiac. It is employed in malaria, in typhoid and in diseases of the stomach as well as locally in the form of an aqueous solution of the fluid extract as an aphrodisiac. In addition, it may be given internally in the form of a fluid extract or a tincture. Ecthol is said to be the most powerful antagonist of suppuration. According to Meyer this substance has a powerful effect in toxanmias. Parker, Webster, Snyder, and Russell have shown that it is of great service in infectious diseases, in septic wounds and in the bites of serpents, as well as in chronic catarrhs. —*N. Y. Med. Journal,* March 15, 1902.

A Systematic Alterative Effect.

The following from *Gaillard's Medical Journal,* by Dr. A. H. Ashley, of Boston Mass., will interest our readers because of the original way in which he expresses his pronounced admiration for something tried, trusted and not found wanting. The letter was written to our old friends, The Antikamnia Chemical Company, and reads as follows:

Gentlemen:—Your various combination tablets, as well as antikamnia tablets, have been used by me for a number of years, and I can only say that they have uniformly given me the best results. But, my dear sirs, why have you waited so long to give us the very best combination of them all? I, of course, allude to your "laxative antikamnia & quinine tablets."

If there is anything known to the medical profession which will take their place in that class of diseases, where one wishes to relieve pain and control the temperature and at the same time produce, by laxation, a systematic alterative effect, it has not been my good fortune to find it. In those cases of severe neuralgia, and particularly in ovarian and menstrual pain, where morphine was our only hope (and where, after its administration, we had indigestion, bowels bound up, nausea, habit, etc.), you have in Laxative Antikamnia & Quinine Tablets a remedy which will, my experience has taught me,

replace morphine and meet all requirements.

I am slow to be carried away by enthusiasm for any drug or combination of drugs, but I freely and voluntarily confess that in these tablets you have given to the profession a remedy so effective and reliable in its action that it offers good excuse (or a mitigating circumstance anyhow) for a little effusion from one who, as a general thing, is not given to gushing.

With my best wishes for your future and many thanks for your elegant preparations, I am sincerely yours,

A. H. ASHLEY, M. D.

At the time I requested a sample of Pepto-Mangan (Gude) your preparation was not new to me, since I had often previously used it with excellent success, especially in anæmia of women and children. When, therefore, I desired an iron preparation for my own family, I was lead to request you for samples, and I am much pleased to inform you that its taste was much relished. My two children (one and one-half and two and one-half respectively) took it so eagerly in milk that they would scarcely take any milk which did not contain it. No by-effects of any kind occurred which demanded a discontinuance of the preparation. In brief, it was well tolerated and acted splendidly.

DR. D. HIRSCH.

Krakau, Galicia, August 17, 1901.

Crime and Education.

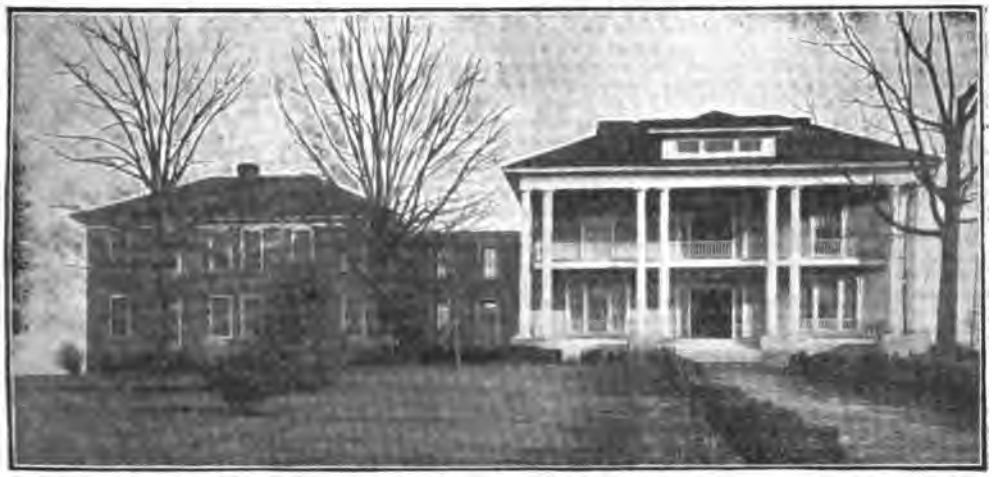
Education is, perhaps, the most prominent factor in the suppression of crime. The most highly cultured and intelligent nations have lass crime than those which occupy a low position in the scale of civilization. The London *Spectator,* of a recent date, has an article on the above subject; in which it says:

"The ignorant races are by no means innocent races. Life and

property are safer in Scotland than in Sicily, and though race and creed may be, in part, the causes, still the latter, at least, must be one of the results of comparative intelligence. Crime, more especially violent crime, on the whole, diminishes with the spread of education, though it must be admitted that in some countries, especially France, there are ugly breaks in the completeness of the evidence. The stupid are often cunning, and there is in the ignorant a disposition toward violence, which the late Mr. Hutton, a keen observer of mental peculiarities, always traced to a consciousness of mental weakness, and its resultant, a wish to manifest strength in some direction, and so preserve self-respect.

"The educated are naturally better aware of consequences, and are, simply because they have been trained, less liable to be carried away by those fierce waves of excitement, the causes of which are still not completely traced. . . . The drunken rough is more disposed toward outrage than the drunken gentleman, because the latter retains more completely some relics of intelligence. The evidence of these engaged in education is, we believe, nearly unbroken in the same direction."

In this country the truth of these remarks is being constantly demonstrated. Deeds of unbridled violence occur more often in the Southern States than elsewhere in America. It has been recently shown that illiteracy is more common not only among the negro population of that section of the continent, but also among the whites, than in any other portion of the United States. Race and climate have important bearing on the matter, but it would seem that these sink into relative insignificance beside that of education. Ignorance does not mean innocence; but, on the contrary, evidence goes to show that where ignorance predominates there will vice and crime flourish exceedingly.—*Medical Record.*



BROADOAKS SANATORIUM,

MORGANTON, NORTH CAROLINA.

A Private Hospital for the Treatment of Nervous and Mental Diseases, Inebriety and Drug Habits.

ISAAC M. TAYLOR, M. D. JOHN McCAMPBELL, M. D.

New York Polyclinic Medicial School and Hospital.

Chartered by the University of the State of New York.

THE OLDEST POST GRADUATE SCHOOL IN AMERICA. ORGANIZED IN 1881—OPENED IN 1882.

The New York Polyclinic is a school for teaching graduates the most recent methods of diagnosis and treatment in every department of medicine. The clinical material is abundant, and the hospital wards adjoin the lecture rooms. Since the fire in 1896, a new building has been erected and thoroughly equipped, and the Institution is now prepared to offer better facilities than ever. Students may enter at any time.

FACULTY.

...ERY—Charles H. Chetwood, M. D.; Robert H. M. Dawbarn, M. D.; W. R. Townsend, M. D.; James P. Tuttle, M. D.; John A. Wyeth, M. D.

...CINE—Isaac Adler, M. D.; Morris Manges, M. D.; W. H. Katzenbach, M. D.; W. W. Van Valzah, M. D.

...OLOGY—J. Riddle Goffe, M. D.; Paul F. Munde, M. D.; (Emeritus); Wm. R. Pryor, M. D.; W. Gill Wylie, M. D.

...TRICS—August Shibert, M. D.

...THOLOGY—Edward B. Bronson, M. D.; Andrew R. Robinson, M. D.

...HALOLOGY—R. O. Born, M. D.; David Webster, M. D., (Emeritus).

...NGOLOGY AND RHINOLOGY—B. Bryson Delavan, M. D.; Joseph W. Gleitsmann, M. D.; Robert C. ...les, M. D.; Francis J. Quinlan, M. D.

...IVY—Oren D. Pomeroy, M. D., (Emeritus); Frederich Whiting, M. D.

...LOGY—B. Sachs, M. D

...ETRICE—Edward A. Ayers, M. D.

For further information write to
DR. W. R. TOWNSEND, Secretary, 214 East 34th St., New York.

When writing advertisers please mention this Journal. xv